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x for the second exposure is $-7{\cdot}2$, the resulting magnitude being

6·69 from the second exposure of 4 minutes.

The third exposure is not shown for all stars.

Plate 2205, *exposed March* 24.

Similarly, for this plate x was determined to be $-8{\cdot}0$ for the third exposure ; the other two have not yet been measured.

The mean measured diameter of the *Nova* is 30·0 (unit = $0''{\cdot}3$), and the resulting magnitude obtained is

8·16 from the third exposure of 4 minutes.

In the same way the equivalent magnitudes in Table I. have been obtained.

Saturday, April 4.—From a careful comparison of the *Nova* with +30° 1306, 8·6, I estimated its magnitude to be 0·2 brighter, *i.e.* 8·4 ; the Moon was near. Two plates were also exposed.

April 23.—In response to applications for positions of fainter stars than the 11th mag. within 15′ of the *Nova*, a plate is being measured which contains stars to the 14th or 15th mag., and the results will probably be communicated to the Society at the May meeting.

University Observatory, Oxford :
1903 *April* 4.

The Place of Nova Geminorum. By Max Wolf, Ph.D.

I send to the Society a direct enlargement of Dugan's plate of February 16 of the region of Nova *Geminorum.* I compared this plate under the stereo-comparator with a plate of Mr. Goetz of April 3. There is nothing exactly at the place of the Nova, but extremely near to it is a starlike object of about the sixteenth magnitude, and this extends over the place of the Nova, so that the Nova may be a part of this chain-like object. The original plate was exposed for three hours with my 6-inch Voigtländer lens. It is enlarged about five times. The exact place on the accompanying photograph (Plate 13) is shown on the key map by the intersection of the two lines near the centre.

Königstuhl : 1903 *April* 6.

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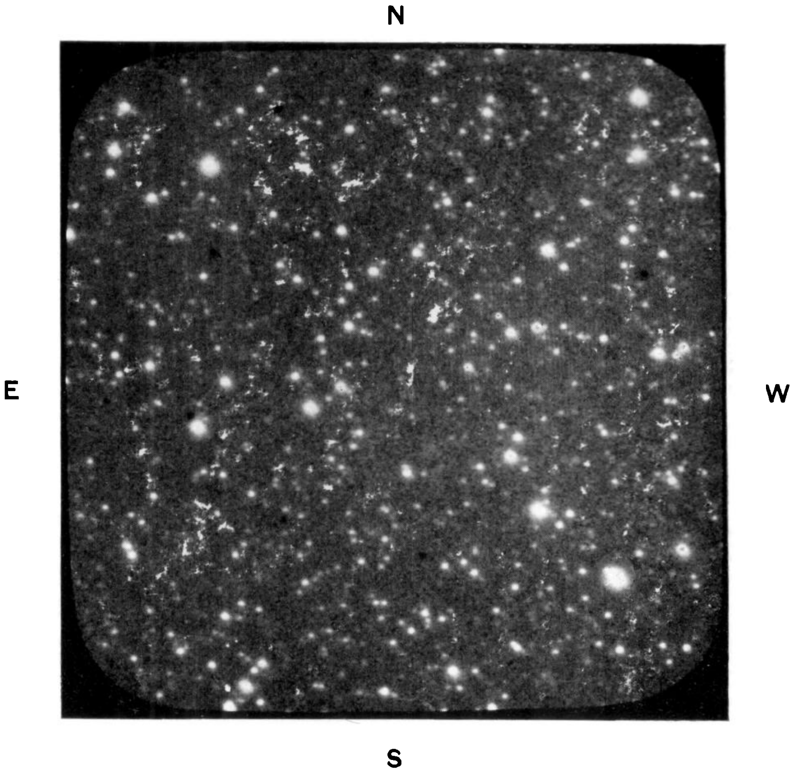
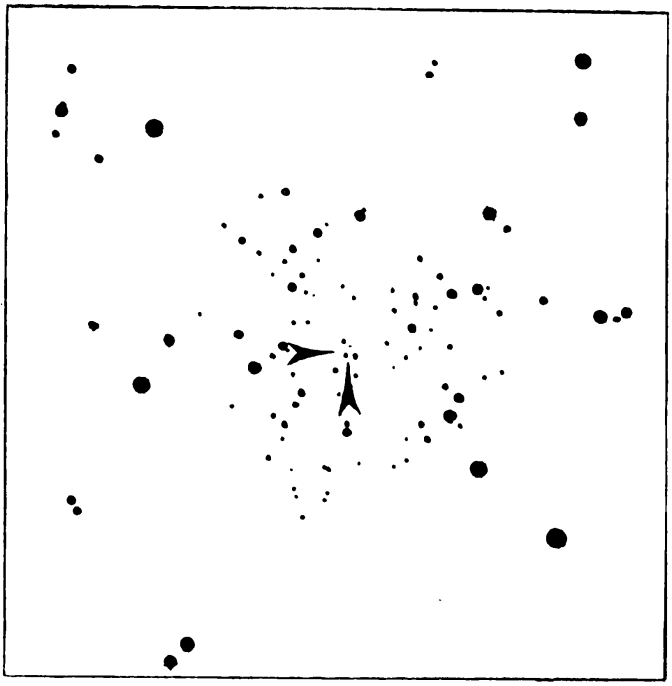


REGION OF NOVA GEMINORUM.—MAX WOLF

1903 Feb. 16d 9h 3m.1 to 12h 11m.1.



KEY MAP.

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Rotation Periods of the Markings on Jupiter.

By W. F. Denning.

It seems desirable to trace, as closely as possible, the markings on *Jupiter* at successive oppositions, so that the changeable velocities of the different currents may be determined and compared. By this means it will ultimately become possible to ascertain whether the motions are subject to regular periodical variations in rate or whether they merely partake of the character of atmospheric vagaries, and are not reducible to any law. Long-continued observations of the markings may also furnish useful evidence as to their durations as visible objects, and also on the question of possibly recurrent outbreaks in certain latitudes after intervals of comparative quiescence.

As a contribution to a consecutive history of this planet's mobile phenomena, I have compiled the following summary of mean rotation periods computed from observations at Bristol, extending over the five years 1898 to 1902 inclusive, with a 10-inch Browning-With reflecting telescope and one of Steinheil's "monocentric micrometer oculars" of ¼-inch equivalent focus, giving a power of 312. Magnifiers of 252, 332, and 488 were occasionally employed, but the one of 312 was usually found the most serviceable and efficient.

During the five years named the planet was placed south of the equator (in 1900 and 1901 from 19½° to 23½° S.), and therefore in an unfavourable position for European observers. The suburb of Bishopston, from which my observations were made, lies due north of Bristol, so that the definition was sometimes much impaired by the situation of *Jupiter* immediately over the centre and amid the vapours of a populous city.

To what extent low altitude affected the telescopic images may be judged from the following figures. The planet was examined on 328 nights, and on 292 of these a note was made as to the quality of the seeing.

Definition very good	25	nights.
Good	52	,,
Fair	66	,,
Bad	93	,,
Very bad	56	,,

It would be premature to discuss the results fully, but it may be mentioned that during the five years the mean rotation periods of the markings varied as under :—

	h	m	s		h	m	s
Equatorial spots	9	50	23½	to	9	50	29
N. tropical spots	9	55	26½	to	9	55	31½
N. and N.N. temperate spots	9	55	50	to	9	55	56½
S. temperate spots	9	55	18½	to	9	55	20½
Great red spot	9	55	42	to	9	55	39